



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,756	06/24/2003	Peter H. Bartels	6121.019	9946

34282 7590 10/20/2006

QUARLES & BRADY STREICH LANG, LLP
ONE SOUTH CHURCH AVENUE
SUITE 1700
TUCSON, AZ 85701-1621

EXAMINER

TABATABAI, ABOLFAZL

ART UNIT	PAPER NUMBER
----------	--------------

2624

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,756

Applicant(s)

BARTELS, PETER H.

Examiner

Abolfazl Tabatabai

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) 1-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

JINGGEWU
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/24/06.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2, 4-9, 12, 13 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alberts et al (U. S. 6,204,064 B1) in view of Douglass et al (U. S. 6,151,405).

Regarding claim 1, Alberts discloses a method of imaging a biological sample with a microscopic imaging system, comprising the following steps:

(a) imaging the sample to produce a plurality of image-forming signals corresponding to a plurality of pixels on an image of the sample (column 3, lines 1-8 and column 4, lines 41-45);

(b) analyzing said plurality of image-forming signals to produce a measure of image-forming features in said image (please see abstract and column 3, lines 1-18), wherein said measure is a statistically significant indicator of pathology in portions of said image (column 3, lines 18-35).

However, Alberts is silent about the specific details regarding the step of:

(c) assigning a visually detectable marker to each of said portions of the image corresponding to image-forming signals that produced said measure.

Art Unit: 2624

In the same field (medical imaging) of endeavor, however, Douglass discloses system and method for cellular specimen grading comprising the step of:

(c) assigning a visually detectable marker to each of said portions of the image corresponding to image-forming signals that produced said measure (column 11, lines 30-32).

It would have been obvious to a person of ordinary skill in the art at this time the invention was made to use visually detectable marker as taught by Douglass in the system of Alberts because Douglass provides Alberts an automated cell analysis systems which have been developed to improve the speed and accuracy of the slide evaluation process.

Regarding claim 2, Alberts discloses the method of claim 1, wherein said image-forming signal is optical density (column 4, lines 54-57).

Regarding claim 4, Alberts is silent about the specific details regarding the method of claim 2, wherein said marker is color.

In the same field (medical imaging) of endeavor, however, Douglass discloses system and method for cellular specimen grading comprises marker is color (column 6, lines 48-51).

It would have been obvious to a person of ordinary skill in the art at this time the invention was made to use marker is color as taught by Douglass in the system of Alberts because Douglass provides Alberts an automated cell analysis systems which have been developed to improve the speed and accuracy of the slide evaluation process.

Claims 5 and 7 are similarly analyzed as claim 4 above.

Claim 6 is similarly analyzed as claim 2 above.

Regarding claim 8, Alberts discloses the method of claim 2, wherein said portions of the image are cell nuclei (column 3, lines 8-15).

Regarding claim 9, Alberts discloses the method of claim 2, wherein said microscopic imaging system comprises a plurality of individual miniaturized microscopes in an array microscope (column 4, lines 20-32).

Regarding claim 12, Alberts discloses apparatus for imaging a biological sample with a microscopic imaging system, comprising the following steps:

a light optical microscope (column 4, lines 28-32);

means for imaging the sample to produce a plurality of image-forming signals corresponding to a plurality of pixels on an image of the sample (column 3, lines 1-8 and column 4, lines 41-45);

means for analyzing said plurality of image-forming signals to produce a measure of image-forming features in said image (please see abstract and column 3, lines 1-18), wherein said measure is a statistically significant indicator of pathology in portions of said image (column 3, lines 18-35).

However, Alberts is silent about the specific details regarding the step of:

means for assigning a visually detectable marker to each of said portions of the image corresponding to image-forming signals that produced said measure.

In the same field (medical imaging) of endeavor, however, Douglass discloses system and method for cellular specimen grading comprising the step of:

means for assigning a visually detectable marker to each of said portions of the image corresponding to image-forming signals that produced said measure (column 11, lines 30-32).

It would have been obvious to a person of ordinary skill in the art at this time the invention was made to use visually detectable marker as taught by Douglass in the system of Alberts because Douglass provides Alberts an automated cell analysis systems which have been developed to improve the speed and accuracy of the slide evaluation process.

Claim 13 is similarly analyzed as claim 2 above.

Claims 15 and 16 are similarly analyzed as claim 4 above.

Claim 17 is similarly analyzed as claim 6 above.

Claim 18 is similarly analyzed as claim 7 above.

Claim 19 is similarly analyzed as claim 8 above.

Claim 20 is similarly analyzed as claim 9 above.

3. Claims 3, 10, 11, 14, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alberts et al (U. S. 6,204,064 B1) and of Douglass et al (U. S. 6,151,405) as applied to claims 1 and 12 above, and further in view of Anderson et al (U. S 2003/0032017 A1).

Regarding claim 3, Alberts and Douglass are silent about the specific details regarding the method of claim 2, further including the step of combining said marker with the image to produce an information-enriched image.

Art Unit: 2624

In the same field (medical imaging) of endeavor, however, Anderson discloses quantification of low molecular weight and low abundance proteins using high-resolution two-dimensional electrophoresis and mass spectrometry comprises information-enriched image [page 4, column 2, paragraph (0048)].

It would have been obvious to a person of ordinary skill in the art at this time the invention was made to use information-enriched image as taught by Anderson in the system of Alberts because Anderson provides Alberts an improved system which in mass spectrometry have made it possible to determine protein masses up to 20,000 Kda with unit mass accuracy using samples in the picomole or femomole range [please see paragraph (0076)].

Claims 10, 11, 14, 21 and 22 are similarly analyzed as claim 3 above.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (571) 272-7458.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Jingge Wu, can be reached at (571) 272-7429. The fax phone number for organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

Art Unit: 2624

applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abolfazl Tabatabai

Patent Examiner

Technology Division 2624

October 14, 2006


JINGGE WU
PRIMARY EXAMINER